

KUDRYAVTSEV, Boris Vasil'yevich; FRUMKIN, B.A. red.; MEL'NIKOVA, Ye.E.,
red.izd-va; TISHKEVICH, Z.V., tekhn.red.

[Nepal; economy and foreign trade] Nepal; ekonomika i vneshniaia
torgovlia. Moskva, Vneshtorgizdat, 1959. 115 p. (MIRA 12:10)
(Nepal--Economic conditions) (Nepal--Commerce)

GALITSKIY, Nikolay Fedorovich; MOISEYEV, Anatoliy Aleksandrovich;
OGLOBLIN, Georgiy Aleksandrovich; PASENKO, Igor' Aleksandrovich;
FRUMKIN, Boris Solomonovich; ZOTIKOV, G.I., doktor tekhn. nauk,
retsenzent; SHAURAK, Ye.N., red.; FRUMKIN, P.S., tekhn. red.

[Designs of gas turbine systems; album of drawings] Konstruktsii
gazoturbinnnykh ustanovok; al'bom illiustratsii. Leningrad, Sud-
promgiz, 1962. 99 p. ____ [Description] Opisanie. 163 p.

(MIRA 15:6)

(Gas turbines--Design and construction)

GALITSKIY, Nikolay Fedorovich; MOISEYEV, Anatoliy Aleksandrovich;
OGLOBLIN, Georgiy Aleksandrovich; PASENKO, Igor' Aleksandrovich;
FRUMKIN, Boris Solomonovich; ZOTIKOV, G.I., doktor tekhn. nauk,
retsenzent; MOISEYEV, A.A., nauchnyy red.; SHAURAK, Ye.N., red.;
FRUMKIN, P.S., tekhn. red.

[Design of gas-turbine plants] Konstruktsii gazoturbinnykh ustanovok; opisanie. [By] N.F.Galitskii i dr. Leningrad, Sudpromgiz, 1962. 163 p.
(MIRA 15:9)
(Gas turbines--Design and construction)

FRUMKIN, Boris Solomonovich; REBROV, B.V., kand. tekhn. nauk,
dots., retsenzent; VASIL'YEV, V.K., nauchn. red.;
SHAURAK, Ye.N., red.

[Diagram TSJ for the calculation of marine gas turbines]
Diagramma TSJ dlia rascheta sudovykh gazoturbinnnykh usta-
novok. Leningrad, Sudostroenie, 1965. 62 p.
(MIRA 18:8)

FRUMKIN, F.D.

KITAYTSHEV, G.P., inzhener [deceased]; KOSOROTOV, I.V., inzhener; TULLAYEV, N.P., inzhener; *FRUMKIN, F.D.*, inzhener; YAKOVLEV, V.N., inzhener, redaktor; TURKOV, G.A., inzhener, redaktor; TIKHANOV, A.Ya., tekhnicheskii redaktor

[Assembling machine tools; a concise reference manual] Montazh metallorezhushchego oborudovaniia; kratkoe spravochnoe posobie. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1956. 123 p.

(Machine tools)

(MLRA 10:3)

FRUMKIN, F.D.

Universal magnetic table. Mod. metalloresh stan. no.1:22-23 '58.
(MIRA 12:12)

(Factories--Equipment and supplies)

FRUMKIN, Froim Davidovich.

Machining bed guides during repair. Mod.metallorozn.stan.

no.5:3 '59. (MIRA 13:5)

(Machine tools--Maintenance and repair)

FRUMKIN, F.D.; NEVSKIY, A.A.

Analyzing troubles and breakdowns of machine tools.
Mashinostroitel' no.9:22 S '65. (MIRA 18:12)

FRUMKIN, G.; VODOP'YANOV, I.; KOROBEKOV, A.

Building control by State Bank branches. Den. i kred. 21 no.3:
39-46 Mr '63. (MIRA 16:3)

1. Nachal'nik tekhnicheskogo otdela Leningradskoy gorodskoy kontory Gosbanka (for Frumkin).
2. Nachal'nik tekhnicheskogo otdela Stavropol'skoy krayevoy kontory Gosbanka (for Vodop'yanov).
3. Starshiy inzh. Stavropol'skoy krayevoy kontory Gosbanka (for Korobkov).

(Construction industry--Auditing and inspection)
(Banks and banking)

FRUMKIN, Georgiy Davydovich; LEVITIN, Ye.A., retsenzents; PROLOV,
A.D., retsenzents; GOROKHOVA, S.S., tekhn. red.

[Design and construction of radio apparatus] Raschet i
konstruirovaniye radioapparatury. Moskva, Izd-vo
"Vysshaya shkola," 1963. 318 p. (MIRA 17:2)

FRUMKIN, I. A.

ca

2

Electrocapillary phenomena and the wetting of metals by electrolytic solutions. I. A. FRUMKIN, A. GORODITSKAYA, B. KARANOV AND N. NEKRASOV. *Physik. Z. Sowjetunion* 1, 255-54 (1932).—The relation between the soln.-Hg potential difference and the contact angle in the three-phase boundary soln.-Hg-gas and aq. soln.-Hg-oil was investigated. The max. of the contact angle-polarization curve lies at approx. the same potential at which the max. of the contact potential of Hg-soln. is observed by a capillary electrometer. From the dependence of the size of the interface potential between the gas bubble and Hg on the polarization and from the compn. of the surrounding soln. it is concluded that the Hg-gas interface is covered with an adsorbed aq. layer. In the case of a drop of some org. solvent resting on a Hg surface and surrounded by an aq. soln. a similar but not so well-marked dependence of contact angle on the polarization is observed. Near the max. of the contact angle-polarization curve, the Hg is wet much more effectively by the org. solvent than by H_2O . In the case of drops of wet liquids such as caproic acid, or phenol contg. polar groups the contact angle becomes 180° over a certain polarization region. The wetting of a Ag surface by aq. Na_2SO_4 and KNO_3 solns. increases with cathodic polarization. The contact angle between a drop of octane and a fresh PbS surface in a soln. of KNO_3 with and without some added Na_2S was also measured. P. H. EMMETT

ASM-A1A METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS		PROCESSES AND PROPERTIES INDEX		1ST AND 2ND ORDERS	
FRUMKIN, I. A.				11	
<p>THE MOTION OF SOLID AND LIQUID METALLIC BODIES IN SOLUTIONS OF ELECTROLYTES. I. A. FRUMKIN AND B. LEVICH (A CTA PHYSICOCHEM. U.S.S.R., 1945, 20, (6) 789-802 (In English) In connection with electrocapillarity and electrokinetic phenomena, particularly with reference to the influence of the electrolyte on the motion of the mercury electrode in polarographic studies, the behaviour of charged particles moving in an electrolyte under the action of an external electric field is theoretically investigated. Non-conducting particles, ideally polarizable and incompletely polarizable metallic particles are separately considered. The theoretical principles involved and the results obtained are fully discussed. G.V. R,</p>					
<p>ASB-51A METALLURGICAL LITERATURE CLASSIFICATION</p>					
<p>100000 100000 100000 100000 100000 100000</p>					

ANDREYEV, I.A., prof.; GLUSKIN, L.Ya., kand.tekhn.nauk; LITVINOV, V.D., inzh.;
KOVACHICH, V.A., inzh.; FRUMKIN, I.A., inzh.; MOSCHUK, Ya.I., inzh.;
DOLBILKIN, V.I., inzh.; ROMANOV, P.A., inzh.; SOYKO, A.B.

Using furnaces with basic high-refractory arches to improve the quality
of chromium steel. Stal' 20 no.10:896-898 0 '60. (MIRA 13:9)

1. TSentral'nyy nauchno-issledovatel'skiy institut i Izhorskiy zavod.
(Chromium steel--Metallurgy) (Open-hearth furnaces)

ACC NR: AP6031708

(1.) SOURCE CODE: UR/03.4/06/000/007/0041/0042

AUTHOR: Frumkin, I. A. (Engineer); Kozlov, V. I. (Engineer); Kuznetsova, A. V. (Engineer); Ostanin, V. G. (Engineer)

ORG: none

TITLE: Attempt to construct a high-pressure reactor for operation at high temperatures

SOURCE: Khimicheskoye i neftyanoye mashinostroyeniye, no. 7, 1966, 41-42

TOPIC TAGS: metal heat treatment, thermal fatigue, pressure vessel, metallurgic process, chemical reactor / 25Kh2MF steel, 25Kh3MF steel

ABSTRACT: The design of a reactor for operation at 1500 atm and 400°C (for the production of synthetic minerals) is described. The reactor (autoclave) body was made of 25Kh2MF steel and the cover was made of 25Kh3MF steel. After forging, both pieces were subjected to lengthy, multi-stage thermal treatment at 150-1010°C and 4-56 hr duration. After this treatment, both the reactor body and the cover had higher mechanical properties than those required for operation at 1500 atm and 400°C. The assembled reactor passed the 1875 atm test. Orig. art. has: 3 figures, 2 tables.

SUB CODE: 18, 13 SUBM DATE: none/ ORIG REF: 001

UDC: 66.023.7-987.002.2

Card 1/1

L 10075-67 EWT(d)/EWT(1)/EWT(f)/EWT(c)/EWT(v)/EWT(k)/EWT(h)/EWT(l) IJP(c) TG
 ACC NR: AT6024296 (A) SOURCE CODE: UR/2057/66/000/050/0089/0100

AUTHOR: Neymark, A. I. (Doctor of technical sciences, Professor); Frumkin, L. P.

ORG: none

TITLE: Mathematical programming in the formulation and solution of production line reliability problems

SOURCE: Leningrad. Inzhenerno-ekonomicheskii institut. Trudy. no. 58, 1966, Matematiko-ekonomicheskiye problemy (Mathematical and economic problems); trudy Mezhdvuzovskoy nauchnoy konferentsii Primeneniye matematiki i elektronno-vychislitel'noy tekhniki v ekonomike, 1964 g., 89-100

TOPIC TAGS: linear programming, reliability engineering

ABSTRACT: Production line reliability is defined in terms of volume, quality, and rate of output. These properties are assessed in application to each unit position in the line, to the totality of units, and to the line as a whole. Three aspects of reliability are distinguished: a) extensive reliability, defined by the reliability of the operation of equipment; b) intensive reliability, defined by the stability of output in a unit of time and c) reliability in quality control. In the first, parameters of rejects and those of reparability are taken into account. The following formula is used to define extensive reliability:

Card 1/2

L 10075-67

ACC NR: AT6024296

$$p = \frac{t_p}{t_p + t_n}$$

for the case of a single working place; here, t_p is the average time between two re-jects and t_n is the average time lost in removing the reject. Graphical illustration is used to show how production may be programmed in order to increase the reliability of production on the basis of a study of extremal problems. Orig. art. has: 4 figures, 42 formulas, 1 table.

SUB CODE: 12,13/

SUBM DATE: none

Card 2/2

L 12015-65 EWT(m)/EPF(c)/EWP(j)/T Pc-4/Pr-4 ASD(m)-3 RM
ACCESSION NR: AP4046467 S/0032/64/030/010/1222/1224

AUTHOR: Voyutskiy, S. S.; Yagnyatinskaya, S. M.; Frumkin, L. S.;
Yepiseyeva, S. N.; Rayevskiy, V. G.

TITLE: Method for determining the adhesion⁷ of polymers to powder fillers ⁶

SOURCE: Zavodskaya laboratoriya, v. 30, no. 10, 1964, 1222-1224

TOPIC TAGS: adhesion, polymer, filler, powder filler, sodium butadiene rubber, nitrite rubber, chalk, chemical black

ABSTRACT: A new method has been developed for determining the adhesion of polymers to any powder filler. The method is based on the use of substrates prepared from mixtures of various amounts of a powder filler with a binder. The surface of the substrate must be mechanically pretreated and cleaned to ensure close contact between the filler particles and the polymer. The adhesion of the polymer to the pure filler was determined by graphic extrapolation of experimental curves of adhesion values versus binder/filler ratio to a zero binder content. The results of experiments conducted with: 1) sodium buta-

Card 1/4

L 12015-65

ACCESSION NR: AP4046467

diene (CKB-35) rubber as the polymer and mixtures of poly(vinyl alcohol) (binder) and chalk (inactive filler) as the substrate, and 2) with nitrite (CKN-40) rubber as the polymer and mixtures of poly(vinyl alcohol) (binder) and chemical black (active filler) as the substrate are given in Figs. 1 and 2 of the Enclosure. The dotted lines are the curve sections extrapolated to a zero binder content. Their intersection with the ordinate indicate the adhesion of the polymer to the pure filler. Orig. art. has: 2 figures. 5

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M. V. Lomonosova (Institute of Fine Chemical Technology)

SUBMITTED: 00

ENCL: 02

SUB CODE: GC

NO REF SOV: 003

OTHER: 004

ATD PRESS: 3124

Card 2/4

L 12015-65
ACCESSION NR: AP4046467

ENCLOSURE: 01

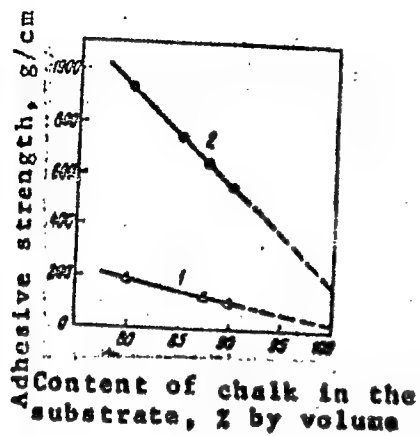


Fig. 1. Adhesive strength of CKB-35 to substrate depending on its chalk content

1 and 2 - adhesive joints prepared at 20 and 70C, respectively.

Card 3/4

L 12015-65
ACCESSION NR: AP4046467

ENCLOSURE: 02

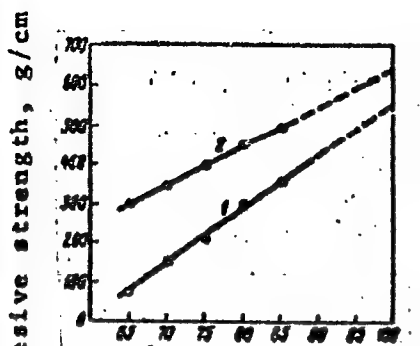


Fig. 2. Adhesive strength of CKN-40 to substrate depending on its carbon black content

1 and 2 - adhesive joints prepared at 20 and 70C, respectively.

Adhesive strength, g/cm

Content of carbon black in the substrate, % by volume

Card 4/4

137 AND 138 PAGES										139 AND 140 PAGES									
PROCESSING AND PROPERTY INDEX																			
<div style="display: flex; justify-content: space-between;"> BC B-II-9 </div>																			
<p>X-Ray analysis of caoutchouc and rubber. L. S. FUMKIN and I. D. GOSTUCHANOV (Zavod. Lab., 1934, 3, 1112—1114).—The application of X-ray analysis to the control of vulcanization is discussed. R. T.</p>																			
A 58-554 DETAILING LITERATURE CLASSIFICATION																			
FROM STATION										TO STATION									
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The shock-absorbing quality of rubber. L. Frumkin and V. Margaritov. *J. Rubber Ind.* (U. S. S. R.) 11: No. 8, 213-22, No. 8, 424-6, No. 7, 113-15 (1934).—The shock-absorbing quality of the "first degree" can be expressed by the equation: $W = 100(E - E_1)/E$ where E is the energy expended in deforming the rubber, E_1 is the energy

returned by the rubber, and W is the energy the rubber transforms into heat during 1 cycle of deformation. The shock-absorbing quality of the "second degree" is denoted by r , the total time elapsed for deformation of the rubber and resumption of its original form, and shows the tendency of rubber to decrease the force of the shock by increasing its elapsed time. A special app. was constructed (by Chishevskii and Taibulakii) to det. W and r . It consists essentially of a pile-drive-like pendulum, with a wt. of 1 kg. at its lower end. Ring samples of rubber (inside diam. 16 mm., outside diam. 29 mm., thickness 3 mm.) are put on 2 rods of different lengths. One of the rods is stationary and the other (of greater length) is movable. The pendulum on moving forward strikes at a movable rod and stretches the rubber; when the pendulum moves backward the rod takes its former position. The oscillations are registered on an evenly movable tape and are recorded as curves. Different rubbers give different curves. Calcn. and nomographs are given to det., by means of these

curves, W and r . To det. the effect of fillers on W and r , the tests were made with mixes. of smoked sheet 100, SiO_2 , ZnO , stearic acid 0.5, mercaptobenzenethiolamide 0.5, tetramethylthiuram disulfide 0.15 and lampblack, ZnO , kaolin and chalk in proportions of 2.5, 5, 10, 15, 20 and 30 parts by vol. (per 100 parts of rubber). The products were first tested 24 hrs. after cure and before any deformation. W and r depended on the energy of the stroke: with an increase of energy from 10 to 20 kg. per cm. W did not change in the mixt. contg. no filler or in the one with chalk kaolin; it decreased with ZnO and increased with chalk and C black. r was greater at small energies. W and r depended on the proportion of fillers (the curves given were detd. at an energy of 12 kg. per cm.). W depended upon the temp. effect of deformation and with C black (30 vol.) was 34% (10°); with kaolin 31% (5.5°); with chalk 22% (3°); and with ZnO 32% (3°). To det. W in rubber after it had been worked and rested, the rubber rings were stretched and contracted on a S hopper machine at the rate of 100 cycles per min., and with a max. elongation of ring of 275%. The curves show W at the start, after 10 and 500 cycles, after 2, 4, 8, 24 and 48 hrs. of rest, after 500 cycles more and after more rest. After 10 cycles W decreased for the C black mixes, and for ZnO (2.5-15 vols.) and increased for ZnO (30 vols.) and chalk (10-30 vols.). After 500 cycles W decreased for C black and ZnO , increased for chalk (20-30 vols.) and did not change for kaolin. During the first 2-4 hrs. of rest, W decreased for C black, ZnO and kaolin. After 48 hrs. of rest, W almost reached its original value, except for

ASD 14 A DETAILLUMINAL LITERATURE CLASSIFICATION

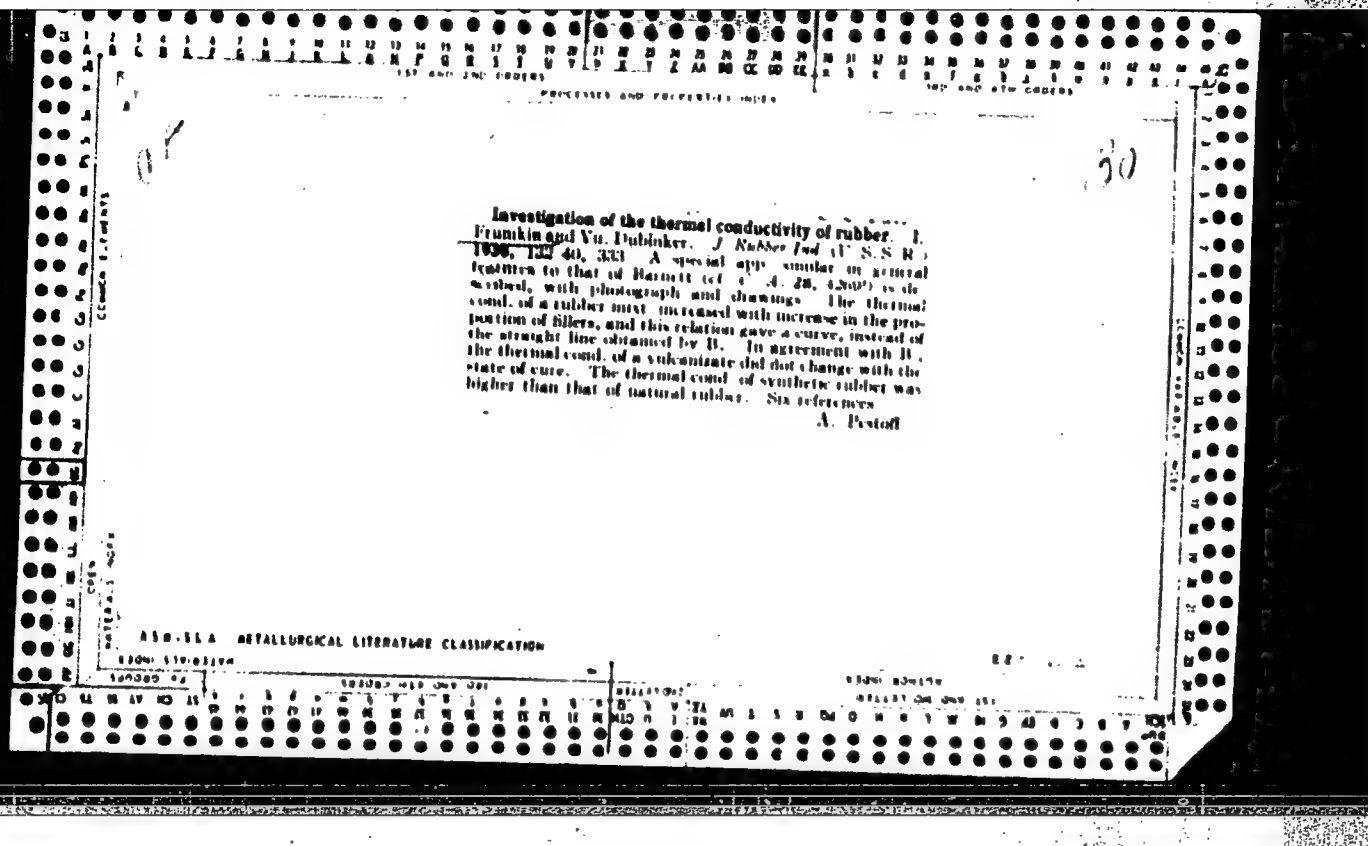
high-vol. chalk mixes. After the 2nd cycle of work and rest the curves showed the reverse conditions of W for C black and ZnO with 2.5-10 vols. and similarly with 15-30 vols. and 2.5-10 vols. with kaolin. In all mixes, W decreased after the 2nd cycle of test. The 1000 cycles decreased W more than two 500 cycles with rest between. In the mixt. contg. no filler after 48 hrs. of its first rest W increased; after the 2nd cycle of work W decreased, but after the 2nd rest it increased to its value after its 1st rest. Conclusions. The great changes in W (sometimes reverse) after cycles of work throw doubt on the value of the results of ordinary standard methods of testing undeformed samples. The decrease in W during the first 2-4 hrs. of rest after 500 cycles of work is named "fatigue inertia." The d increased after 500 cycles of work, e. g., that of the mixt. contg. no filler was 0.950 before and 0.974 after, ϵ was not affected by the type of filler, but depended on the quality of the base vulcanizate.

A. Pestoff

CA

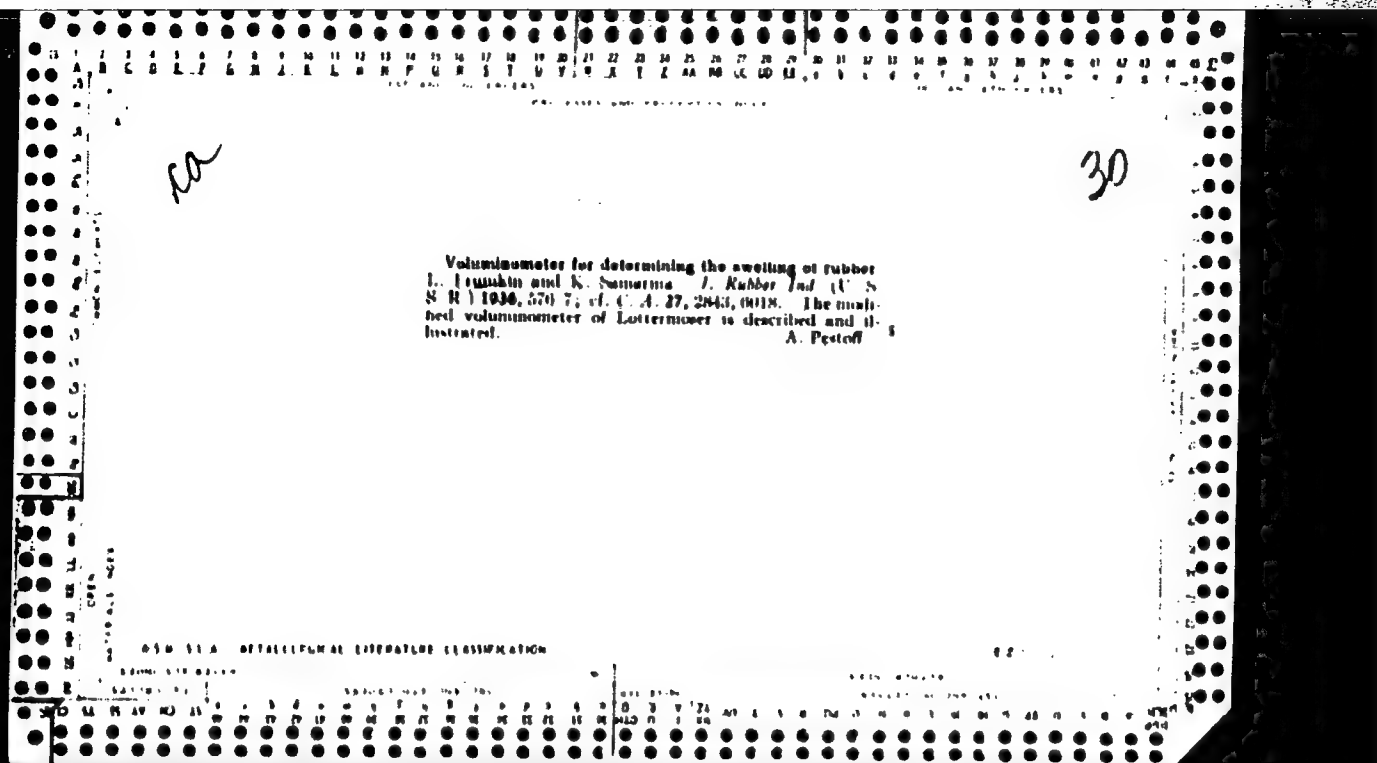
Porous rubber and ebonite. M. M. Polunkovskaya
and L. S. Frumkin. Russ. 41,181, Jan. 31, 1935. Rubber
and ebonite are made porous by saturating the rubber
soln. with N in the presence of a piezoelec. quartz plate
placed on the bottom of the container and excited to vibra-
tion by means of an electron generator. This brings about
a high degree of dispersion of the N.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION



Study of the properties of rubber under vibration and shock. I. Vibrating deformation under compression.
 L. S. Prumkin. *J. Rubber Ind.* (U. S. S. R.) 1956, 370-8; *Tr. C. A. 29, 402P*. A special app., comprising essentially 2 telephones, was constructed to measure the vibrating deformation of rubber. The membrane of each telephone was connected with a brass disk, to which was glued a glass disk; to the glass disk was glued a layer of rubber (2 mm. thick). Between these 2 disks were placed the samples (round disks: diam. 13 cm., thickness 15 mm.). The membrane of the first telephone created mech. vibrations (regulated with a rheostat and potentiometer), which were transferred by the rubber sample to the membrane of the second telephone. The vibration amplitudes of the 2 membranes thus differed from each other to an extent which depended on the degree of absorption of vibration by the rubber. The current induced in the 2nd telephone was measured galvanometrically (sensitivity 0.64×10^{-6}). The modulus of elasticity (E) was calculated from the formula: $v = \sqrt{E/\rho}$, where v is the velocity of propagation of longitudinal waves; ρ the density of the rubber. $v = 360.1/T\phi$, where l is thickness of the rubber sample; T is the time corresponding to the whole period of a c.; ϕ (in electric degrees) is a distortion of the phases created by the rubber between the disks. The tests were made with 30 samples of different rubber mixes. E was found to depend on the character and proportion of different fillers. C black produced the highest E in all mixes. (5), 182, 205, 149, 632 kg. per sq. cm.). Mixts.

with natural rubber gave higher E values than with synthetic rubber. The energy transferred by the rubber from the lower to the upper telephone was expressed by $(I_1/I_2)^2$, where I_1 is the current induced in the second (upper) telephone when the rubber was placed between the disks and I_2 is the current induced in the second telephone without a sample between the disks. The decrease of the value $(I_1/I_2)^2$ showed the increase of the shock-absorbing quality of the rubber sample. Increase of ZnO increased the shock-absorbing quality of a rubber mixt. The best shock-absorbing properties (0.05) had the sponge rubbers (with inside cells). Shock-absorbing quality had no relation to E . Twelve references. A. Bondell



1st and 2nd Series		Properties and Properties		3rd and 4th Series	
<p>A simple construction of a needle-like thermocouple. L. Frumkin and Yu. Dubinkin. <i>Conductance and Rubber</i> (U.S.S.R.) 1957, No. 6, 10-12. A. Pustol</p>					
<p>ASR-5.6 METALLURGICAL LITERATURE CLASSIFICATION</p>					
1st and 2nd Series		3rd and 4th Series		5th and 6th Series	
1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30
31	32	33	34	35	36
37	38	39	40	41	42
43	44	45	46	47	48
49	50	51	52	53	54
55	56	57	58	59	60
61	62	63	64	65	66
67	68	69	70	71	72
73	74	75	76	77	78
79	80	81	82	83	84
85	86	87	88	89	90
91	92	93	94	95	96
97	98	99	100	101	102

PROCESSING AND PROPERTIES INDEX																									
1ST AND 2ND ORDER													1ST AND 2ND ORDER												
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<p>Determination of the permeability of rubberized cloth to water vapor. K. I. Samurina and L. S. Frankin, <i>Caoutchouc and Rubber</i> (U. S. S. R.) 1938, No. 1, 45. A new app. and technic are described. A beaker is sealed with a hollow cover. The top and periphery of this cover are ebonite; the lower deck of the cover carries the taut rubberized cloth. In the space between, a strip of filter paper impregnated with CaCl_2 and NaCl is suspended. The points of suspension are elec. leads so that an increasing current passes through the paper as the latter absorbs moisture. A galvanometer records the changes in d. c. The cover chamber (and suspended paper) are dried by passage of dry air, the beaker is filled with water and the app. assembled. The d. c. is then read periodically. By plotting d. c. against time, the resulting graphs show the relative permeabilities of different rubberized fabrics.</p> <p>A. Prestoff</p>																									
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION																									
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Direct determination of the plasticity of rubber batches on running rolls. J. S. Trunkin and Yu. B. Dubinko *Rubber Chem. and Technol.* 41, 5, 8, 1968, No. 17, 5, 8.

A new 3-roll, 2 disk type plastometer for the direct detn of the temp. and plasticity of rubber on running rolls is described. Results with this app. are compared with those of a Katter plastometer. Bernard Kilberg

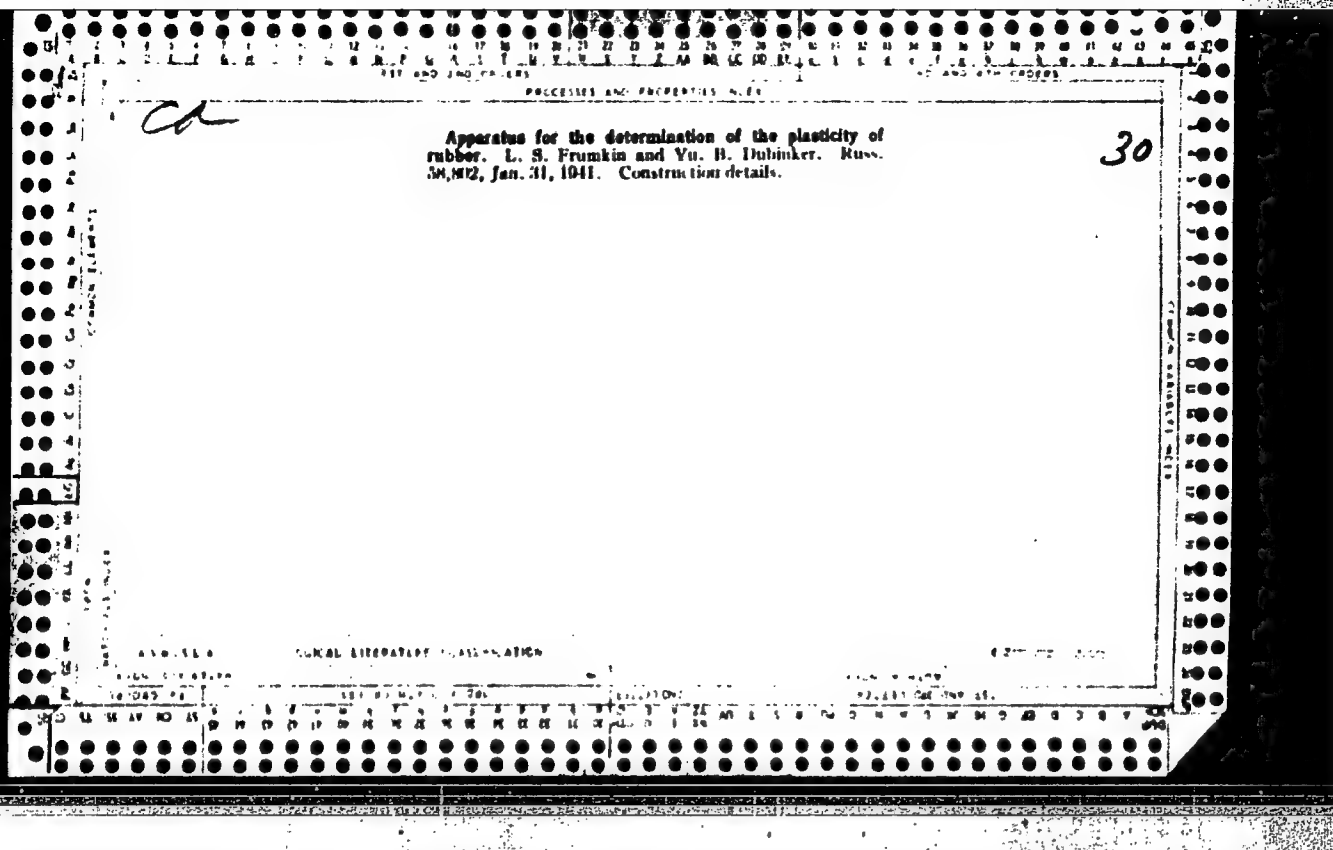
STANDARD SPECIFICATION									
SPECIFICATIONS AND PROPERTIES INDEX									
<div style="position: absolute; left: 10px; top: 10px; font-family: cursive; font-size: large;">BC</div> <div style="position: absolute; right: 10px; top: 10px; font-family: cursive; font-size: large;">B-2-10</div> <div style="margin-top: 20px;"> <p>Heat-conductivity of rubber. L. S. FRUMKIN and V. E. DUBINSKY - <i>Rubber Chem. and Technol.</i>, 1937, June, 20-24; Rubber Chem. and Technol., 1938, 12, 303-304. A method based on the theory of cooling of simple bodies is described for evaluation of the thermal conductivity (T) from the curve of cooling (from 100°) at the centre of spheres of vulcanized rubber (both natural and synthetic) of diameter 60 mm., as recorded by means of a thermocouple. The T of all types of rubber mixtures increases with the temp. Small % of ZnO decrease T and higher % increase it, but in presence of Q black the direction of these changes is reversed. Q black up to 25% (by wt.) increases T, but greater proportions cause a decrease. Various forms of Q black influence T differently and lampblacks have a greater effect than gas blacks.</p> <p style="text-align: right;">D. F. T.</p> </div>									
ASSOCIATED METALLURGICAL LITERATURE CLASSIFICATION									
SOURCE SYMBOLS									
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30

Heat conductivity of rubber. I. S. Frankin and Yu. H. Dubinkin. *Capacitors & Rubber* (U. S. S. R.) 1930, No. 6, 25-34; cf. C. A. 30, 6567. The effects of ZnO and C black on the heat cond. of rubber were investigated by observing with the aid of a Cu-constantan thermocouple the course of cooling of rubber spheres 60 ± 0.2 mm. in diam., which had been previously heated to 135° in a specially constructed heater. The results, given in curves, show that the cond. of all mixes, increased with temp. Addn. of ZnO in ordinary proportions decreased the cond. of a mixt. contg. no C black but increased the heat cond. of mixes. contg. C black. With increase in the C black to 25% by wt., the heat cond. increased, but further addn. reduced it. Lampblack gave a higher heat cond. than did C black. H. Z. Karnik

ASB SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND COLUMNS																										3RD AND 4TH COLUMNS																									
PROCESSING AND PROPERTY INDEX																										PROCESSING AND PROPERTY INDEX																									
<p>Investigation of the heat-resistance of ebonite 1. S. Frankin and Yu. B. Dubenko. <i>Caoutchouc and Rubber</i> (U. S. S. R.) 1940, No. 1, 21-8. <i>Chem. Reflat. Zhar</i> 1940, No. 6, 131-1. Existing methods for detg. the heat-resistance of ebonite (Martens and similar methods) have a no. of disadvantages. The method cannot be used to study various thicknesses of ebonite, the results depend on the thermal cond. of the ebonite and the results are only the av. heat-resistance of large samples. E. and V. constructed an app. (the "45° app.") which does not have these disadvantages. The ebonite sample with rectangular plates is placed in a vise whose jaws are inclined at a 45° angle. A steel plate 1 mm. thick is pressed perpendicularly against the plates of the sample with a force of 1 kg. and the penetration of the plate with increase in temp. is followed. Dctn. of the temp. at which the plate penetrates to a definite depth is sufficient for production control of the heat-resistance of ebonite. The app. is provided with light signals which indicate the moment when the plate penetrates to the required depth. The heat-resistance of ebonite is considerably smaller at and near the surface than at greater depths. W. R. Henn</p>																										30																									
																										<p>ASH-55A METALLURGICAL LITERATURE CLASSIFICATION</p>																									
<p>1ST AND 2ND COLUMNS</p>																										<p>3RD AND 4TH COLUMNS</p>																									



117 AND 118 COLUMNS		PROCESSING AND PROPERTIES INDEX		119 AND 120 COLUMNS	
<p>CA</p> <p>1</p> <p>Apparatus for determining the heat resistance of ob- jects, plastics, etc. L. S. Frankin and Ya. B. Dubniker. U.S.S.R. 68,884, June 30, 1948. The detn. comprises measuring the temp. at which a ball, rod, or similar body penetrates the material up to a certain depth. M. JI.</p>					
<p>ASM-A4 METALLURGICAL LITERATURE CLASSIFICATION</p>					
FROM SYNDICATE		TO THE EDITOR		TO THE EDITOR	
LONDON		LONDON		LONDON	
MAY 1948		MAY 1948		MAY 1948	

Aug 12

Hand Public Books

Apparatus for determining the heat resistance of
chemicals, plastics, and the like. L. S. FRUMKIN and
Y. B. DEBINKER (U.S.S.R.P. 66654, Chem. Abs.,
1947, 41, 100M). The determination consists in
measuring the temperature at which a ball, rod, or
similar body penetrates the material to a given
depth. 6624432

1947

YAGNYATINSKAYA, S.M.; RAYEVSKIY, V.G.; FRUMKIN, L.S.; VOYUTSKIY, S.S.

Effect of vulcanization on the stripping resistance of filled rubber stocks and on elastomer to filler adhesion. Vysokom. soed. 7 no.9:1510-1514 S '65. (MIRA 18:10)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M.V. Lomonosova i Moskovskiy tekhnologicheskiy institut myasnoy i molochnoy promyshlennosti.

L 1721-66

EVI(a)/EPI(c)/EPI(j). RM

ACCESSION NR: AP5022592

UR/0190/65/007/009/1510/1514
678.01:53

AUTHOR: Yagovtinskaya, E. M.; Bayevskiy, V. G.; Frumkin, L. S.; Vayutskiy, S. S.
TITLE: Effect of vulcanization on the tear resistance of filled rubber mixtures
on elastomer-to-filler adhesion

SOURCE: Vysokomolekulyarnyye soedineniya, v. 7, no. 9, 1965, 1510-1514
TOPIC TAGS: filler, elastomer, vulcanizate, adhesion, adhesion strength, vulcani-

ABSTRACT: A study has been made of the effect of vulcanization on the tear resistance of filled elastomers and on the elastomer-to-filler adhesion strength. The experiments were conducted with sodium butadiene (SKB-30) and nitrile (SKB-40) rubbers, and with such fillers as chalk, channel black, or furnace black. A comparison was made of the effect of structure formation in the course of vulcanization on elastomer-to-filler adhesion with this effect on the tear resistance of filled and unfilled elastomers. It was shown that the elastomer-to-filler bond strength is one of the factors which determine the strength of filled elastomers. It is stressed, therefore, that improvement of elastomer-to-filler ad-

Card 1/2

L 1721-66

ACCESSION NR: AP5022592

hesion should be given greater weight as a means of increasing the strength of filled vulcanizates. Orig. art. has: 5 figures. (80)

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M. V. Lomonosova (Moscow Institute of Fine Chemical Technology); Moskovskiy tekhnologicheskii institut m'yasa i molochnoy promyshlennosti (Moscow Institute of the Meat and Dairy Industry)

SUBMITTED: 1986g/4

ENCL: 00

SUB CODE: MT

NO REF SOV: 009

OTHER: 001

ATO PRESS 4096

Card

FRUMKIN, M.

Two weeks with highway transport workers in Poland. Avt.
transp. 38 no. 12:9-12 D '60. (MIRA 13:12)

1. Korrespondent zhurnala "Avtomobil'nyy transport."
(Russia--Relations (General) with Poland)
(Poland--Transportation, Automotive)

FRUMKIN, M.

That is "Avtodorozhnik Ukrainy." Avt.transp. 41 no.4:58 Ap
'63. (MIRA 16:5)
(Ukraine--Transportation, Automotive--Periodicals)

SHUMOV, A., inzh.; FRUMKIN, M.; DMITRIYEV, I.

Traffic organization and safety. Avt. transp. 43 no.2:42-46
F '65. (MIRA 18:6)

FRUMKIN, M.

If the objectives of construction industry and automotive transportation workers are common. Avt. transp. 43 no.8:52-53 Ag '65.
(MIRA 18:9)

1. Spetsial'nyy korrespondent zhurnala "Avtomobil'nyy transport".

FRUMKIN, M.

Chemistry in automotive transportation. Avt. transp. 43 no.12:
53-56 D '65. (MIRA 18:12)

MARKOSYAN, A.A., red.; FRUMKIN, M.I., red.; TARASOVA, V.V., tekhn.red.

[Age morphology and physiology] Vozrastnaya morfologiya i fiziologiya. Pod red. A.A.Markosyana. Moskva, 1959. 386 p.
(MIRA 13:2)

1. Akademiya pedagogicheskikh nauk RSFSR, Moscow. Institut fizicheskogo vospitaniya i shkol'noy gigiyeny. 2. Chlen-korrespondent APN RSFSR (for Markosyan).
(Age)

FRUMKIN, M. I.

"Application of High-Frequency Sterilization for Improving the Quality of Fruit Preserves." Sub 28 Dec 51, Moscow Inst of National Economy imeni G. V. Plekhanov

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55

CHERNYAYEV, N.D.; FRUMKIN, M.L.

Use of high-frequency currents in the canning industry.
[Isdania] LONITOMASH no.30:449-453 '52. (MIRA 8:1)
(Canning industry)

FRUMKIN, I.L.

~~FRUMKIN, I.L.~~

Corrosive effect of the wild rose. Nauka i zhizn' 23 no.10:63

0 '56.

(MLRA 9:11)

(Corrosion and anticorrosives)

(Rose hips)

FRUMKIN, M.L.; KOVAL'SKAYA, L.P.

Discussion of methods for the preparation of potatoes for dehydration.
Kons.i ov.prom. 12 no.9:26-31 S '57. (MIRA 10:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut konservnoy i
ovoshchesushil'noy promyshlennosti.
(Potato--Drying)

FRUMKIN, M.L.; KOVAL'SKAYA, L.P.

Reduction of sugar content of potatoes for dehydration. Kons. i ov.
prom. 13 no.3:6-10 Mr '58. (MIRA 11:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut konservnoy i
ovoshchesushil'noy promyshlennosti.
(Potatoes--Drying)

FRUMKIN, M.L.; KOVAL'SKAYA, L.P.

Nonfermentative darkening of dried vegetables and potatoes
during storage. Kons. i ov. prom. 13 no.8:20-23 Ag '58.
(MIRA 11:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut konservnoy i
ovoshchesushil'noy promyshlennosti.
(Vegetables, Dried--Storage) (Potatoes--Storage)

FRUMKIN, M.L., starshiy nauchnyy sotrudnik; KOVAL'SKAYA, L.P., starshiy
nauchnyy sotrudnik; YEPIKHINA, H.V., mladshiy nauchnyy sotrudnik

Steam-heating method of preparing potatoes for drying. Trudy
VNIIEOP no.9:53-67 '59. (MIRA 14:1)
(Potatoes--Drying)

FRUMKIN, M.L.; KOVAL'SKAYA, L.P.

Role of sugars in the processes responsible for the
darkening of potatoes in drying. Kons.i ov.prom. 14 no.12:
13-16 D '59. (MIRA 13:3)

1. TSentral'nyy nauchno-issledovatel'skiy institut konservnoy
i ovoshchesushil'noy promyshlennosti.
(Potatoes--Drying)

ROGACHEV, V.I.; FRUMKIN, M.L.; KOVAL'SKAYA, L.P.; DOROFEEVA, Ye.V.

Changes in the coloring matter of beets sterilized by
ionized radiations and heat. Kons.i ov.prom. 15 no.2:
13-16 P '60. (MIRA 13:5)

1. TSentral'nyy nauchno-issledovatel'skiy institut konservnoy i
ovoshchesushil'noy promyshlennosti.
(Beets--Sterilization) (Coloring matter)

FRUMKIN, M.L., starshiy nauchnyy sotrudnik; KOVAL'SKAYA, L.P., starshiy
nauchnyy sotrudnik

Storage of dehydrated vegetables and potatoes. Trudy VNIKOP no.9:
99-118 '59. (MIRA 14:1)

(Vegetables, Dried--Storage)

ROGACHEV, V.I.; FRUMKIN, M.L.; PAVLOVA, G.L.; DCZORNETS, D.P.

Biochemical changes taking place in meat subjected to irradiation and during subsequent storage. Kons.i ov. prom. 15 no.6:13-15 Je '60. (MIRA 13:9)

1. TSentral'nyy nauchno-issledovatel'skiy institut konservnoy i ovoshchesushil'noy promyshlennosti.
(Meat--Sterilization)

ROGACHEV, V.I.; FRIDKIN, M.L.; KOVAL'SKAYA, L.P.; YEGOROVA, K.V.; DOROFYEVA,
Ye.V.

Certain factors causing the darkening of the tuber tissues of potatoes
sterilized by ionizing radiation. Kons.i ov.prom. 15 no.8:11-15 Ag
'60. (MIRA 13:8)

1. TSentral'nyy nauchno-issledovatel'skiy institut konservnoy i ovoshche-
sushil'noy promyshlennosti. (Potatoes) (Radiation sterilization)

ROGACHEV, V.I.; FRUMKIN, M.L.; KOVAL'SKAYA, L.P.; YEGOROVA, K.V.

Transformations of coloring matter in green peas during
sterilization by heat and gamma rays. Kons.i ov.prom. 15
no.9:19-24 S '60. (MIRA 13:9)

1. Tsentral'nyy nauchno-issledovatel'skiy institut konservnoy
i ovoshchesushil'noy promyshlennosti.
(Peas--Sterilization) (Coloring matter)

FRUMKIN, M.L.; KOVAL'SKAYA, L.P.; DOROFYEVA, Ye.V.

Transformations of fruit and berry anthocyanins in the course
of sterilization by heat and γ -rays. Kons.i ov.prom. 16 no.5:
8-12 My '61. (MIRA 14:5)

1. Tsentral'nyy nauchno-issledovatel'skiy institut konservnoy
i ovooshchesushil'noy promyshlennosti.
(Fruit--Sterilization) (Anthocyanins)

FRUMKIN, M.L.; KOVAL'SKAYA, L.P.; YEGOROVA, K.V.; DOROFEYEV, Ye.V.

Effect of the ionizing radiation on the amount and quality of
grape juice. Kons. i ov. prom. 16 no.7:16-20 JI '61.

(MIRA 14:8)

1. TSentral'nyy nauchno-issledovatel'skiy institut konservnoy
i ovoschesushil'noy promyshlennosti.

(Grape juice) (Gamma rays--Industrial application)

FRUMKIN, M.L.; KOVAL'SKAYA, L.P.; YEGOROVA, K.V.; POVALYAYEVA, I.P.

Duration of clarification and the quality of grape juice treated
with X-rays. Kons. 1 ov. prom. 16 no.9:8-13 S '61. (MIRA 14:8)

1. TSentral'nyy nauchno-issledovatel'skiy institut konservnoy i
ovoshchesushil'noy promyshlennosti.
(Grape juice) (Gamma rays--Industrial application)

FRUMKIN, M.L.; PAVLOVA, G.L.; DOZORETS, D.P.

Qualitative changes of free amino acids of irradiated meat
during storage. Kons. i ov. prom. 16 no.11:14-16 N '61.

(MIRA 14:11)

1. Tsentral'nyy nauchno-issledovatel'skiy institut konservnoy i
ovoshchesushil'noy promyshlennosti.

(Meat—Preservation)

(Gamma rays—Industrial application)

FRUMKIN, M.L.; PAVLOVA, G.L.; DOZORETS, D.P.

Autolytic changes in irradiated meat in storage. Kons.i ov.prom.
17 no.2:4-6 F '62. (MIRA 15:5)

1. Tsentral'nyy nauchno-issledovatel'skiy institut konservnoy
i ovoshchesushil'noy promyshlennosti.
(Meat--Preservation)

FRUMKIN, M.L.; SHCHEGOLEVA, G.I.; BARSKAYA, E.M.

Use of rays for the disinfection of food products. Kon.i ov.
prom. 17 no.11:23-26 N '62. (MIRA 15:11)

1. Tsentral'nyy nauchno-issledovatel'skiy institut konservnoy
i ovoshchesushil'noy promyshlennosti.
(Insects in food)

FRUMKIN, M.L.; PAVLOVA, G.L.; DOZORETS, D.P.

Effect of gamma rays on some protein fractions of beef. Kons. i
ov.prom. 18 no.1:19-22 Ja '63. (MIRA 15:2)

1. Tsentral'nyy nauchno-issledovatel'skiy institut konservnoy i
ovoshchesushil'noy promyshlennosti.
(Protein--Analysis) (Radiation sterilization)

FRUMKIN, N.B.; SKOPAROV, I.Ya.

Unify the efforts in constructing local roads. Avt. dor.
no.10:20-21 O '64. (MIRA 17:12)

1. Starshiy inzh. otдела mestnykh dorog Glavnogo upravleniya
shosseynykh dorog pri Sovete Ministrov BSSSR (for Frumkin).

LEVCHENKO, G.I., admiral, otvetstvennyy red.; DEMIN, L.A., dots., kand. geogr. nauk, inzh.-kontr-admiral, glavnyy red.; ~~ZHUKOV, N.S.~~, polkovnik, zamestitel' otvetstvennogo red.; ABAN'KIN, P.S., admiral, red.; ALAFUZOV, V.A., prof., kand. voenno-morskikh nauk, admiral, red.; ANAN'ICH, V.Ye., kontr admiral zapasa, red.; ACHKASOV, V.I., kand. istor. nauk, kapitan 1 ranga, red.; BARANOV, A.N., red.; BILII, V.A., prof., kontr-admiral v otstavke, red.; BESKROVNIY, L.G., prof., doktor istor. nauk, polkovnik zapasa, red.; BOLTIN, Ye.A., kand. voen. nauk, general-mayor, red.; VERSHININ, D.A., kapitan 1 ranga, red.; VITVER, I.A., prof., doktor geogr. nauk, red.; GIL'FOND, G.M., dots., kand. voenno-morskikh nauk, kapitan 1 ranga, red.; GLINKOV, Ye.G., inzh.-kontr-admiral v otstavke, red.; YELISHYEV, I.D., vitse-admiral, red.; ZOZULYA, F.V., admiral, red.; ISAKOV, I.S., prof., Admiral Flota Sovetskogo Soyuza, red.; KAVRAYSKIY, V.V. [deceased], prof., doktor fiz.-mat. nauk, inzh.-kontr-admiral v otstavke, red.; KALESNIK, S.V., red.; KOZLOV, I.A., dots., kand. voenno-morskikh nauk, kapitan 1 ranga, red.; KOMAROV, A.V., vitse-admiral, red.; KUDRYAVTSEV, M.K., general leytenant tekhnicheskikh voyak, red.; LYUSHKOVSKIY, M.V., dots., kand. istor. nauk, polkovnik, red.; MAKSIMOV, S.N., dots., kand. voenno-morskikh nauk, kapitan 1 ranga, red.; OKUN', S.B., prof., doktor istor. nauk, red.; ORLOV, B.F., prof., doktor geogr. nauk, red.; PAVLOVICH, N.B., prof., kontr-admiral v otstavke, red.; PANTEL'EYEV, Yu.A., admiral, red.; PITERSKIY, N.A., kand. voenno-morskikh nauk, kontr-admiral, red.; PLATONOV, S.P., general-leytenant, red.; POZNYAK, V.G., dots., general leytenant, red.; SALISHCHEV, K.A., prof., doktor tekhn. nauk, (Continued on next card)

LEVCHENKO, G.I.---(continued) Card 2.

red.; SIDOROV, A.L., prof., doktor istor. nauk., red.; SKORODUMOV,
L.A., kontr-admiral, red.; SHNEZHINSKIY, V.A., prof., doktor
voenno-morskikh nauk, inzh.-kapitan 1 ranga, red.; SOLOV'YEV, I.N.,
dets., kand. voenno-morskikh nauk, kapitan 1 ranga, red.; STALBO,
K.A., kontr-admiral, red.; STEPANOV, G.A. [deceased], dets., vitse-
admiral, red.; TOMASHVICH, A.V., prof., doktor voenno-morskikh
nauk, kontr-admiral v otstavke, red.; TRIBITS, V.F., kand. voenno-
morskikh nauk, admiral, red.; CHERNYSHOV, F.I., kontr-admiral, red.;
SHVETZ, Ye.Ye., prof. doktor voenno-morskikh nauk, kontr-admiral,
red.; CHURBAKOV, A.I., tekhn. red.; VASIL'YEVA, Z.P., tekhn. red.;
VIZIROVA, G.N., tekhn. red.; GOROKHOV, V.I., tekhn. red.; GRIN'KO,
A.M., tekhn. red.; KUBLIKOVA, M.M., tekhn. red.; MALINKO, V.I.,
tekhn. red.; SVIDNERSKAYA, G.V., tekhn. red.; CHERNOGOROVA, L.P.,
tekhn. red.; GUREVICH, I.V., tekhn. red.; BUKHANOVA, N.I., tekhn.
red.; NIKOLAYEVA, I.N., tekhn. red.; RADOVIL'SKAYA, E.O., tekhn.
red.; TIKHOMIROVA, A.S., tekhn. red.; BELOCHKIN, P.D., tekhn. red.;
LOYKO, V.I., tekhn. red.; ROMANYUK, I.G., tekhn. red.; YAROSHEVICH,
K.Ye., tekhn. red.

[Sea atlas] Morskoi atlas. Otv. red. G.I. Levchenko. Glav. red.
L.A. Demin. [Moskva] Izd. Glav. shtaba Voenno-morskogo flota.
Vol.3. [Military and historical. Pt.1. Pages 1-45] Voenno-istori-
cheskii. Zamestitel' otv. red. po III tomu N.S. Frankin. Pt.1.
Listy 1-45. 1958. [Military and historical maps, pages 46-52]
(Continued on next card)

LEVCHANKO, G.I.---(continued) Card 3.

Voenno-istoricheskie karty, listy 46-52. 1957.

(MIRA 11:10)

1. Russia (1923-- U.S.S.R.) Ministerstvo oborony. 2. Nachal'nik
Glavnogo upravleniya geodezii i kartografii Ministerstva vnutrennikh
del SSSR (for Baranov). 3. Chlen-korrespondent Akademii nauk SSSR
(for Kalesnik). 4. Deystvitel'nyy chlen Akademii pedagogicheskikh
nauk RSFSR (for Orlov).

(Ocean--Maps)

MUSTAFIN, I.S.; FRUMINA, N.S.; KOVALEVA, V.S.

Determination of copper in various substances with the aid of
2,2'-bichinchonic acid. Zav.lab. 29 no.7:782-785 '63.

(MIRA 16:8)

1. Nauchno-issledovatel'skiy institut khimii pri Saratovskom
gosudarstvennom universitete.

(Copper—Analysis) (Cinchonic acid)

BERG, S.L., polkovnik; VOROB'YEV, V.I., kapitan pervogo ranga; GIL'BO, G.M., kapitan pervogo ranga; ANANCHENKO, A.A.; BALAKSHINA, M.M.; BANNIKOV, B.S., kapitan vtorogo ranga; BAKHTINA, G.F.; BERENSHAM, N.V.; BUTYRINA, N.Ya.; VOROB'YEV, V.I., kapitan pervogo ranga; GASS, I.P.; GINBYSH, N.S.; GLADIN, D.F., polkovnik; GOLOVANOV, L.G., kand. ist. nauk; GOLUBEVA, Z.D., kand. filol. nauk; GONCHAROVA, A.I.; ZANADVOROVA, R.N.; IVANOVA, N.G.; KARAMZIN, G.B.; KOVAL'CHUK, A.S.; KRONIDOVA, V.A.; LITOVA, Ye.I.; MOLCHANOVA, T.I.; OKUN', L.S.; POCHEBUT, A.H.; RAYTSES, V.I.; SAVINOVA, G.N.; SENICHKINA, T.I.; SKRYNNIKOV, R.G., kand. ist. nauk; FURAYEVA, I.I.; CHIZHOVA, N.N.; YASINSKAYA, L.F.; GLADIN, D.F., polkovnik; LABETSKIY, Ye.F., podpolkovnik; LEHEDEV, S.M., kapitan pervogo ranga; ORDYNSKIY, N.I., kapitan pervogo ranga; NADVODSKIY, V.Ye., podpolkovnik; DEMIN, L.A., inzh.-kontr-admiral, glav. red.; FRUMKIN, N.S., polkovnik, zam. otv. red.; LEVCHENKO, G.I., admiral, red.; BAKHTINA, G.F., tekhn. red.

[Naval atlas] Morskoi atlas. n.p. Izd. Glavnogo Shtaba Voenno-Morskogo Flota. Vol.3. [Naval history] Voenno-istoricheskii. Pt.1. [Text for the maps] Opisaniia k kartam. 1959. xxi, 1942 p. (MIRA 15:5)

1. Russia (1923- U.S.S.R.) Ministerstvo oborony. (Naval history)

FRUMKIN, N.S., polkovnik zapasa

Who is the main culprit of the catastrophe at Pearl Harbor.
Mor. sbor. 46 no.10:90-94 0 '63.

(MIRA 18:12)

FRUMKIN, O., akademik

Rebirth of electrochemistry. Nauka i zhyttia 12 no.3:26-29 Mr
'63. (MIRA 16:11)

FRUMKIN, P.A.

Who discovered Cape Prince of Wales? Geog. v shkole no.6:59-61
Y-D '53. (MLRA 6:12)

(Prince of Wales, Cape--Discoveries (in geography))
(Discoveries (in geography)--Prince of Wales, Cape)

FRUMKIN, P. A.,

"Notes on the History of Spitzbergen," Chronicles of the North; Yearbook of Historical Geography, History of Geographical Discoveries and Exploration of the North) v. 2, Moscow, Geografiz, 1957. 279 p. (Akademiya nauk SSSR. Kommissiya po problemam Severa).

Editorial Board: Andreyev, A. I., Belov, M. I., Burkhanov, V. F., Yefimov, A. V. (Resp. Ed.), Chernenko, M. B. (Deputy Resp. Ed.) and Shcherbakov, D. I.; Ed.: Vorontsova, A. I.; Tech. Ed.: Kosheleva, S. M.; Map. Ed.: Mal'chevskiy, G. N.

PURPOSE: The book is intended for readers interested in the Soviet Arctic.

COVERAGE: The present volume, the second of a series of three, is a collection of 27 articles by various authors presenting an historical account of the exploration and economic development of the Soviet North. A small part of the book is devoted to Arctic areas beyond the confines of the Soviet Union. The aim of the book is to contribute to an understanding of the physical geography, cartography, ethnography, and economy of the Soviet North through a historical survey of these factors. A large number of authors explorers, scientists, travelers, pilots, navigators, etc., are cited.

FRUMKIN, P.A.

For the history of the discovery of Spitsbergen. Let. Sev. 2:142-
147 '57. (MIRA 10:12)

1. Institut aeroklimatologii Glavnogo upravleniya gidrometeorologicheskoy sluzhby pri Sovete ministrov SSSR.
(Spitsbergen--Discovery and exploration)

FRUMKIN, P. B.

Frunkin, P. B. On a theorem of D. F. Egorov on measurable functions. Doklady Akad. Nauk SSSR (N.S.) 66, 973-975 (1948). (Russian)

G. Tolstov has shown [C. R. (Doklady) Acad. Sci. URSS (N.S.) 22, 305-307 (1939)] that Egoroff's theorem does not hold for a continuous parameter. Now the author proves the following generalization of the theorem. If $f(t, s)$, $0 \leq t, s \leq 1$, is for every t measurable and almost everywhere finite, and if $\lim_{t \rightarrow t_0} f(t, s) = f(t_0, s)$ for almost all s , then to every $\epsilon, \delta > 0$ there exists a set E and a positive number φ such that $m(E) > 1 - \delta$ and $|t - t_0| < \varphi$ imply that $\text{ess sup}_{s \in E} |f(t, s) - f(t_0, s)|$, for $s \in E$, is less than ϵ . Formally this theorem differs from Egoroff's theorem by the use of the essential bound in place of the bound. The proof uses Kantorovich's semi-ordered spaces and the following lemma. If (i) $f(t, s) \in L^p(0, 1)$, $p \geq 1$, for every t in $(0, 1)$, (ii) $\lim_{t \rightarrow t_0} f(t, s) = f(t_0, s)$ almost everywhere, (iii) $\sup_t f(t, s) \in L^p$, then for arbitrary $\epsilon, \delta > 0$ there exist a set E and a $\varphi > 0$ such that $\text{ess sup}_{s \in E} |f(t, s) - f(t_0, s)| < \epsilon$ for all $t \in (t_0 - \varphi, t_0 + \varphi)$.

Frantisek Wolf.

Smud

Source: Mathematical Reviews.

Vol 10 No. 4

FRUMKIN, R. A.

Methods of reprocessing oxidized lead ores. S. I. Frumkin

in the form of lead
connected with Fe and Mn centres
state of Pb in the ore is determined
lab by a rotating tubular furnace with a
temperature of 1000°C. The results are
shown in Table 1.

~~FRUMKIN, A.~~
FRUMKINE, V. FRUMKIN, V.A.

"La sulfidine dans la therapie des maladies internes." Froumkine, V., et Piacetskaia, A.,
(p. 423)

SO: Journal of General Chemistry (Zhurnal Obshchei Khimii) 1940, Volume 18, no. 5.

FRUMKIN, V. A.

Arteries - Diseases

Intra-vitam diagnosis of periarteritis nodosa. Klin. med. 31, No. 1, 1953.

9. Monthly List of Russian Accessions, Library of Congress, June 1953, Uncl.

FRUMKIN, V.A. (Moskva)

Errors in the diagnosis of digestive intoxication. Vol'd i akush.
24 no.8:11-12 Ag '59. (MIRA 12:12)
(FOOD POISONING)

AP6035760

DN

AUTHOR: Med, G. D.; Frumkin, V. B.
ORG: none

SOURCE CODE: UR/0413/66/000/019/0131/031

TITLE: Fuel turbopump regulator. Class 60, No. 186863. [announced by Central Scientific Research Design and Planning Boiler and Turbine Institute im. I. I. Polzunov (Tsentrall'nyy nauchno-issledovatel'skiy i proektno-konstruktor'skiy kotloturbinnyy institut)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 19, 1966, 131
TOPIC TAGS: fuel pump, aircraft fuel system, aircraft fuel pump, turbopump

ABSTRACT: The proposed regulator for maintaining a constant pressure in the pump pressure line contains a pressure transducer which transmits a pulse through an intermediate hydraulic amplifier to a spring loaded one-way servomotor. To increase stability and operational reliability, the servomotor piston incorporates a bushing with a slide valve mounted in which receives a pulse from the rpm transducer; the slide valve is connected by a rigid feedback to the intermediate amplifier for automatic continuous operation of the regulator according to the pressure and the rpm. In a variation of this device, to operate the regulator from the air speed transducer only, the intermediate amplifier is made in the form of a housing containing a movable bushing with a movable slide valve inside; the bushing also contains a limiter

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UDC: 621.646.45; 621.675

for the displacement of the slide valve... transducer only, the servomotor has an improved speed regulator slide (see Fig. 1). Orig. art. has: 21/ SUBM DATE: 26Apr65/ ATD PRESS: 5103

APPROVED FOR RELEASE: 06/13/2000

Card 2/2

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9.4320 (1141,1143,1154)

20446
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B124/B204

AUTHOR: Frumkin, V. D.

TITLE: Particular features in the operation of thermistors during the action of a pulsed ultrahigh-frequency signal

PERIODICAL: Izmeritel'naya tekhnika, no. 3, 1961, 45-51

TEXT: The examination of the behavior of thermistors on feeding with alternating current of a frequency of several kops showed that they may behave as elements of low inertia, which then results in the phenomena as deformation of the shape of the voltage in the thermistor fed with purely sinusoidal current, phase shift of voltage to current etc. The authors performed an exact calculation of the non-uniform current density (first described by M. V. Abrosimov and L. A. Lyubimov) over the cross section of a cylindrical semiconductor thermistor, assuming that 1) the length of the thermistor as compared to its radius is sufficiently great in order to make the heat transfer along the axis negligible; 2) the thermistor is fed with current limiting the energy liberated in the thermistor (and thus also limiting temperature), and 3) the temperature

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Particular features in the....

coefficient of conductivity does not depend on temperature. The thermal equilibrium equation and the boundary condition are then given in the form $d^2T/dr^2 + (1/r) \cdot (dT/dr) + (1/\chi)F = 0$ (1) and $(dT/dr + hT)_{r=a} = T_{av}$ (2), where T denotes temperature, χ the thermal conductivity coefficient, a the radius of the thermistor, h the heat exchange coefficient, T_{av} the surrounding temperature, $F = \sigma E^2$ the density of heat sources, σ the conductivity, and E the electrical field. The solution of (1) with consideration of (2) is given by the equation

$$r = r_{av} + \frac{1}{a} \left[\frac{I_0(pr)}{I_0(pa) - \frac{p}{h} I_1(pa)} - 1 \right] \quad (3)$$

where a stands for the coefficient of temperature conductivity, $p = E\sqrt{\sigma a/\chi}$, σ_0 the conductivity of the semiconductor at the temperature of the surrounding medium, I_0 , I_1 the Bessel functions of zeroth and of first order, respectively. From (3) the author determined the maximum

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Particular features in the..

current density ratio over the cross section of the thermistor whose parameters were identical to those of the TLU-2 (TSh-2) thermistor. The equation $T(r,t) = (P/4\pi^2\kappa r) \sum_n (1/n) [\sin n\Omega t_1 - j(1-\cos n\Omega t_1)] e^{-a_n r} e^{j(\Omega t - a_n r)}$

(10), where t_1 denotes the pulse duration, $n = 0, 1, 2, 3, \dots, \Omega$ the angular frequency of the pulse sequence, and $a_n = \sqrt{\Omega n c_0 / 2\kappa}$ the expansion constant,

shows that the heat propagation from a point source has the nature of a wave; a_n increases in proportion with \sqrt{n} , and with rising number of

harmonics attenuation increases. When the energy dissipated periodically by short-time pulses is concentrated in a relatively small region of the semiconductor, heat exchange during one pulse sequence may be regarded a heat exchange between the active domain of the semiconductor and the remaining mass of the thermistor. The thermal balance equation $C(d\theta/dt) + K\theta = P(t)$ (C denoting the total heat content of the zone, K the heat transfer coefficient, θ the temperature change, $P(t)$ the measured energy) (11) holds on the assumption that the energy transduced to the thermistor by a ultrahigh-frequency pulse signal is uniformly

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Particular features in the...

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dissipated in the volume of the active zone, that the temperature of the active zone is equal at every moment, and that the specific heat and the coefficient of heat transfer between the zone and its environment do not depend on temperature. In the case of $t \rightarrow \infty$,

$$\theta_1 = \theta_0 \left[\frac{1 - e^{-\frac{t}{\tau}}}{1 - e^{-\frac{t_c}{\tau}}} \right] \quad (12)$$

$(nt_c < t < nt_c + t_u)$

holds for the duration of pulse action, and

$$\theta_2 = \theta_0 \frac{1 - e^{-\frac{t_u}{\tau}}}{1 - e^{-\frac{t_c}{\tau}}} \cdot e^{-\frac{t - t_u}{\tau}} \quad (13)$$

$(nt_c + t_u < t < (n+1)t_c)$

for the time intervals between the pulses, where $\theta_0 = P/K$, and $\tau = C/K$ the time constant of heat exchange. On the condition $t_1 \leq 0.1\tau$ and $\tau \leq 0.1t_c$,

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Particular features in the...

Eq. (12) is simplified to $\Theta_1 = (P/C)t$ (15) and Eq. (13) to

$$\Theta_1 - \Theta_0 \frac{t_0}{\tau} e^{-\frac{t-t_0}{\tau}} = \frac{Pt_0}{C} e^{-\frac{t-t_0}{\tau}} \quad (16)$$

whereas for temperature increase the expression $\Theta_1 = Pt_1/C = W_1/C$ holds (W_1 denotes the energy of one pulse). The maximum change in resistance of the thermistor is described by the equation $\Delta R_\Theta = R(0) - R(t_1) = R(t_1) - R(t_0)$ (22), or simpler by $R_0 = a_\Theta \Theta_1 R_0$ (a denotes the relative temperature sensitivity of the thermistor, R_0 the d.c. resistance of the thermistor). The dependence of the change in d.c. resistance of the thermistor as caused by a high-voltage field arising from the applied ultrahigh-frequency energy is expressed by $R_1(P) = 2R_0 k_1 U_0 / n [\sqrt{(P/P_n)} - 1 - \arccos \sqrt{(P/P_n)}]$ (29), where R_0 denotes the resistance of the thermistor; k_1 , U_0 , and P_n are constants; n stands for the carrier concentration. There are 5 figures and 2 references: 1 Soviet-bloc and 1 non-Soviet-bloc.

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9.3275

35643
S/589/61/000/053/001/008
B109/B104

AUTHOR: Franklin, V. D.

TITLE: Error of the VIM-1 thermistor bridge in pulse power measurements

SOURCE: USSR. Komitet standartov, mer i izmeritel'nykh priborov.
Trudy institutov Komiteta. no. 53(113). 1961. Issledovaniya
v oblasti radiotekhnicheskikh izmereniy. 21 - 28.

TEXT: Pulse power measurements with the VIM-1(VIM-1) bridge have an error of up to 20% for pulse repetition frequencies between 50 and 400 pulses/sec. This is due to the fact in spite of the delayed action of the thermistor, every single pulse causes a slight change in the resistance of the thermistor (of the order of some ohms for the type TM-2(TSh-2) for pulse powers of approximately 10^{-5} joules). Apart from the high thermal time constant of some tenths of seconds, thermistors have another smaller time constant of 10 to 100 microseconds which is due to the low heat capacity between the current-carrying part and the remaining mass of the semiconductor. In the VIM-1 instrument (Fig. 2), the thermistor is in the main bridge OM, and its resistance is affected by the UHF signal to be measured. The feed-
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Error of the VIM-1 thermistor ...

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B102/B104

back of the output voltage of the amplifier PY causes the formation of natural oscillations with lacking UHF signal (approximately 10^4 cps). If a UHF field is applied, these natural oscillations cease for t_{cp} seconds since the bridge is accurately tuned by the heating of the thermistor, the input voltage at the amplifier vanishes and controlling by the feedback mechanism is excessively delayed. The duration of cessation of natural oscillations, at a given pulse period t_c , only depends on the mean pulse power but not on the power of a single pulse so that $U_p = U_n \sqrt{t_c / (t_c - t_{cp})}$, where U_n is the bridge voltage for pulse modulation in the keying intervals, U_n is the bridge voltage for the nonmodulated signal of the same mean power as that of the pulse modulated signal. The ratio between the power of the nonmodulated signal P_{n3M} indicated by the millivoltmeter MB and the power of the pulse modulated signal P_{p3M} is

$$\frac{P_{n3M}}{P_{p3M}} = 1 - t_{cp}/t_c. \text{ Since}$$

both signals actually have the same mean power, $P_{n3M} = P_{p3M}$. The error

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Error of the VIM-1 thermistor ...

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therefore is $\epsilon_n = \frac{P_{n3n} - P_{n3n}}{P_{n3n}} = \sqrt{1 - t_{cp}/t_c} - 1$.

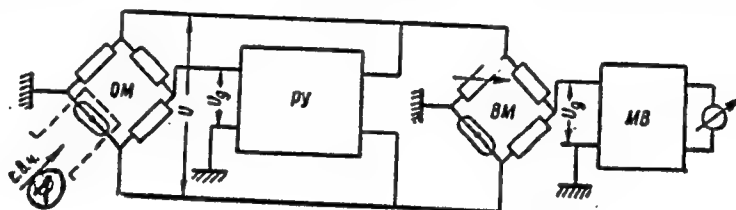
The dependence of the error ϵ_n on t_c and the pulse repetition frequency F_{pr} is shown in Fig. 6. There are 6 figures and 2 Soviet references.

ASSOCIATION: VNIIFTRI

SUBMITTED: January 8, 1960

Fig. 2. Circuit diagram of the bridge

Legend: OM - main bridge; PY - feedback amplifier; BM - auxiliary bridge; MB - millivoltmeter; (1) - UHF.



Card 3/4

BRYANSKIY, Lev Nikolayevich; FRUMKIN, V.D., kand. tekhn. nauk,
nauchn. red.

[Exact microwave measurement of the coefficients of standing waves of voltage and total resistances] Tochnoe izmerenie koeffitsienta stoiachei volny napriazheniia i polnykh soprotivlenii na antimetrovykh volnakh. Moskva, Standartgiz, 1963. 141 p. (MIRA 17:5)

L 19676-65 FMT(0)/FMT(1)/EFC(k)-2/EEC-l/EMA(h) Po-l/Pq-l/Pg-l/Feb/Pk-l/Pl-l
SSD/AFWI.

ACCESSION NR: AP4049082

S/0115/64/000/009/0043/0045

AUTHOR: Pronenko, V. I.; Frumkin, V. D.

TITLE: Checking power meters *26*

SOURCE: Izmeritel'naya tekhnika, no. 9, 1964, 43-45

TOPIC TAGS: power meter, power measurement, SHF power measurement *gm*

ABSTRACT: An outfit for checking SHF-power meters is described; it consists (see Enclosure 1) of signal generator 1, directional coupler 2, fixed attenuator 3, thermistor head 4, thermistor bridge 5, coupling member 6, and wavemeter 7. The outfit can operate as a reference generator after an "attestation" is given to its power calibrator. The "attestation" includes determining, at rated frequencies, the ratio of the output power at attenuator 3 terminated by a matched load to the actual value of the equivalent power in head 4. Formulas for checking procedures, for the reflection factor of a reference power meter, and for the

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errors involved are presented. The principal purpose of the power calibrator is an overall check of low-power meters; however, the calibrator can also be used for checking (with an error of ± 0.25 db) the measuring receivers. "Engineers V. R. Grigorova and V. M. Samsonov, Designer A. F. Fedorova and Technician T. I. Politenkova took part in developing and testing the power calibrators." Orig. art. has: 1 figure and 12 formulas.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 01

SUB CODE: EC

NO REF SOV: 000

OTHER: 000

Card 2/3

ERATUS', V.D., prof. red.; ZAYKO, N.I., ; prof. red.; MAN'KOVICH,
I.B., prof., red.; PAIVAK, P.Ya., prof. red.; SHILOV,
M.S., prof. red.; FRANKIN, Ya.I., prof. red.; CHETAN
Ye.I., prof. red.; CHERNYSHENKO, L.V., red.; POLIGUB,
P.Ya., red.

[Physiology and pathology of connective tissue] Fiziolo-
giia i putologiya soedinitel'noi tkani. Kiev, Zdorov'ia,
1964. 251 p. (MIRA 18:1)

1. Kiev. Medychnyy instytut.

1ST AND 2ND ORDERS										1ST AND 2ND ORDERS									
PROCESSES AND PROPERTIES INDEX										PROCESSES AND PROPERTIES INDEX									
FRUMKIN, Ya. P.										RT									
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Treatment of <i>carbonyl compounds</i> with <i>alkali-metal cyanide</i> anion.																			
A. A. Bogomolets, J. P. Frumkin, R. B. Grigorova, and J. A. Mis-																			
ruchin (J. Med. Uchebn., 1960, 10, 781-791).										M. K.									
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1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
PROCESSING AND PROPERTY INDEX																			
FRUMKIN, Y. P.																			
A-4																			
<p>Treatment of schizophrenia with cytotoxic antitumor serum. A. A. Bogomolets, Y. P. Frumkin, R. B. Grigorova, and I. A. Miruchin (<i>J. Med. USSR</i>, 1940, 20, 1587-1593).—Three intra- venous injections of antitumor serum were given with an interval of 2-3 days between each injection to 300 schizophrenics. Im- provement is claimed in some.</p>																			
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35436. Opyt Prakticheskoy svyazi Kafedr [Kievskogo] Med. Instituta s rayonnymi organizashcheyami zdavookhraneniya. Vracheb. Delo, 1949, No. 11, stb. 1045-46.

Letopis' Zhurnal'nykh Statey, Vol. 48, Moskva, 1949

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32806. Frumkin, Ya. F.; Olivko, I. M.; i Mizukhin, I. A. Elektol'nyy i rezyvisty
sny, elektroskok i zlekto-narkoskok v lechenii i izuchanii shizofrenii i T. Naz.
Funktsional'noy psikhicheskoy patologii. Trudy Kiyevsk. Nauch. - issled. Psikhonev-
rol. In-ta, T. XII, 1949, s. 175-82

SO: Ietopis' Zhurnal'nykh Statey, Vol. 44, Moskva, 1949

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Lectures on psychiatry" delivered to students of the Dept.
of Therapeutics of the Second Moscow Stalin Medical Institute
during the fall semester 1952/53; selected chapters. O.V.
Kerbikov. Reviewed by Ia. P. Frumkin. Zhur.nevr. i psikh.
55 no.11:869-870 '55. (MLBA 8:11)
(PSYCHIATRY) (KERBIKOV. O.V.)